

23. (Original) The electrical connector of claim 21, wherein said load plate comprises first and second opposite sides, each said first and second sides including a retention hook formed therewith, said retention hooks defining a channel sized to receive the package, a third side including a package stop, and a fourth side opposite said third side, said fourth side receiving the package.

Remarks

The Office Action mailed April 7, 2005 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-23 are now pending in this application, of which claims 1, 10, 11 and 21 have been amended. It is respectfully submitted that the presently pending claims define allowable subject matter.

The rejection of Claim 10 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Applicants have amended Claim 10 to establish antecedent basis for "said retention hooks". Applicants respectfully submit that Claim 10 satisfies the requirements of Section 112, second paragraph. For the reasons set forth above, Applicants respectfully request that the rejection of Claim 10 under Section 112, second paragraph, be withdrawn.

The rejection of claims 1-2 and 4-6 under 35 U.S.C. § 102(b) as being anticipated by Shibata et al., (U.S. Patent No. 4,456,318) is respectfully traversed.

Shibata et al describe an IC socket including a substrate (1) and a flat IC package (2) disposed on the socket substrate. The IC package includes conductors (3) that project horizontally sideward from the IC package to engage contact pieces (4) in the socket substrate. A cover member (10) is hinged to the socket substrate and pushes the horizontal conductors from above to the contact pieces against the spring force of the contact pieces.

A rotary lever (12) locks the cover in a closed position. The cover member pivots on pins (6) and includes slide holes (7) that allow the cover member to slide on the substrate when the cover member is closed.

Claim 1 recites an electrical connector including “a socket housing holding an array of electrical contacts; and

a load plate rotatably coupled to said housing and rotatable between an open position and a closed position, said load plate including a channel configured to receive and retain an electronic package when said load plate is in said open position, said load plate loading the package into said housing as said load plate is rotated to said closed position”.

It is respectfully submitted that Shibata et al. neither describe nor suggest the apparatus recited in claim 1. Specifically, Shibata et al. do not describe or suggest a connector having a load plate rotatably coupled to a housing and wherein the load plate includes a channel configured to receive and retain an electronic package when the load plate is in the open position, and then loading the package into the housing as the load plate is rotated to a closed position. Rather, Shibata et al. describe a connector for an IC package that has conductors extending sideways from the IC package and wherein the cover member is slidable on a substrate when the cover member is closed.

Applicants respectfully traverse the assertion in the Office Action that Shibata et al. (Shibata) describes a load plate as claimed. Claim 1 recites that the load plate includes a channel configured to receive and retain an electronic package when the load plate is in an open position. Shibata merely shows a cover member with an opening sufficiently large to allow the IC package shown to pass through. No structure on the cover member is shown that is capable of both receiving and retaining the IC package when the cover member is in

the open position. Further, from the drawings in Shibata, it is apparent that the cover member has downwardly rolled edges on all sides shown including the front edge which is at least inconsistent with structure that would be capable of receiving and retaining an IC package while in the open position. Moreover, the latching features (8, 8a) on the sides, as well as the lever guide plate (17) would seem to interfere with the cover member's ability to receive and retain an electronic package from the sides while in the open position. Interestingly, the Office Action, in the rejection of the claims, fails to point out any structure meeting this claim limitation. Claim 1 further recites that the load plate loads the electronic package into the housing as the load plate is rotated to the closed position. Since the cover member of Shibata cannot retain the IC package while in the open position, it clearly cannot load the IC package onto the substrate. This action is also inconsistent with a cover member that is slidable on the substrate after the cover member is closed.

Accordingly, for the reasons set forth above, claim 1 is submitted to be patentable over Shibata et al.

Claims 2 and 4-6 depend from independent claim 1. When the recitations of claims 2 and 4-6 are considered in combination with the recitations of claim 1, Applicants submit that dependent claims 2 and 4-6 likewise are patentable over Shibata et al.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of claims 1-2 and 4-6 be withdrawn.

The rejection of claims 3 and 7-23 under 35 U.S.C. § 103(a) as being unpatentable over Shibata et al. is respectfully traversed.

Shibata et al. is describe above.

Applicants respectfully submit that the Section 103 rejection of the presently pending claims is not a proper rejection. Obviousness cannot be established by merely suggesting that it would have been obvious to one of ordinary skill in the art to modify Shibata et al. to arrive at the claimed invention. More specifically, as is well established, obviousness cannot be established by modifying the teachings of the cited art to produce the claimed invention absent some teaching, suggestion, or incentive supporting the modification. The Office Action presents no basis supporting the 103 rejection other than the general statement that "Shibata shows all the features of these claims" (3 and 7-23) except a biasing member, a recess in the housing, a key, a lip, and a guide member. With particular regard to the independent claims 1, 11, and 21, the Office Action points to no structure in Shibata that meets the claim limitations, especially those limitations relating to the load plate. Shibata teaches a cover member that, by its structure as described in the specification and as depicted in the drawings, cannot include a channel for receiving and retaining an electronic package when the cover is in the open position. Further, the claimed features of the load plate of the present invention are not shown in any of the cited art.

As the Federal Circuit has recognized, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03.

In the present case, the IC socket of Shibata et al. is described with reference to an IC package with conductors that extend horizontally sideward from the IC package. The cover member includes latches formed along the sides, and also, the lever is mounted on the cover and includes guide plates at the sides. Significant redesign of these features would be required to prevent interference of the cover with the sideward extending conductors on the package before the cover could be adapted to receive and retain an IC package as described in Shibata. If the suggested modifications could be made to Shibata, there would be presented an additional problem of avoiding interference of the cover with the electrical connections between the conductors on the IC package and the contacts in the substrate. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). For at least the reasons stated above, Applicants respectfully submit that a prima facie case for obviousness has not been established and cannot be supported by the teachings of Shibata et al. Accordingly, Applicants respectfully request that the Section 103 rejection of Claims 3 and 7-23 be withdrawn.

Claims 3 and 7-10 depend from claim 1 which is submitted to be patentable over Shibata et al. as indicated above. When the recitations of claims 3 and 7-10 are considered in combination with the recitations of claim 1, Applicants submit that dependent claims 3 and 7-10 likewise are patentable over Shibata et al.

Claim 11 recites an electrical connector including “a socket housing holding an array of electrical contacts, said housing including a guide member to guide an electronic package onto said contact array as the package is loaded into said housing; and a load plate rotatably coupled to said housing and rotatable between an open position and a closed position, said load plate including a channel configured to receive and retain the package

when said load plate is in said open position, said load plate loading the package into said housing as said load plate is rotated to said closed position”.

It is respectfully submitted that Shibata et al. neither describe nor suggest the apparatus recited in claim 11. Specifically, Shibata et al. do not describe or suggest a guide member on the connector housing guiding an electronic package onto a contact array, nor does Shibata et al. describe or suggest a load plate having a channel configured to receive and retain an electronic package when the load plate is in the open position, and then loading the package into the housing as the load plate is rotated to a closed position. Rather, Shibata et al. describe a connector for an IC package that has conductors extending sideways from the IC package and wherein the cover member is slidable on a substrate when the cover member is closed. Shibata et al. make no mention of a guide member on the housing, and the cover member, as illustrated, cannot include a channel for receiving and retaining an electronic package when the cover member is in the open position.

Accordingly, claim 11 is submitted to be patentable over Shibata et al.

Claims 12-20 depend from independent claim 11. When the recitations of claims 12-20 are considered in combination with the recitations of claim 1, Applicants submit that dependent claims 12-20 likewise are patentable over Shibata et al.

Claim 21 recites an electrical connector including “a socket housing holding an array of electrical contacts, said housing including a guide member to guide an electronic package onto said contact array as the package is loaded into said housing; and a load plate rotatably coupled to said housing and rotatable between an open position and a closed position, said load plate including a channel configured to receive and retain the package when said load plate is in said open position, and a lip that orients the package with respect

to said housing, said load plate loading the package into said housing as said load plate is rotated to said closed position”.

It is respectfully submitted that Shibata et al. neither describe nor suggest the apparatus recited in claim 21. Specifically, Shibata et al. do not describe or suggest a guide member on the connector housing guiding an electronic package onto a contact array, nor does Shibata et al. describe or suggest a load plate having a channel configured to receive and retain an electronic package when the load plate is in the open position, and then loading the package into the housing as the load plate is rotated to a closed position. Rather, Shibata et al. describe a connector for an IC package that has conductors extending sideways from the IC package and wherein the cover member is slidable on a substrate when the cover member is closed. Shibata et al. make no mention of a guide member on the housing, and the cover member, as illustrated, cannot include a channel for receiving and retaining an electronic package when in the open position.

Accordingly, claim 21 is submitted to be patentable over Shibata et al.

Claims 22 and 23 depend from independent claim 21. When the recitations of claims 22 and 23 are considered in combination with the recitations of claim 21, Applicants submit that dependent claims 22 and 23 likewise are patentable over Shibata et al.

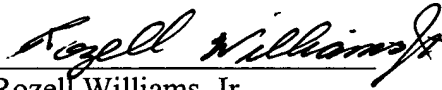
For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of claims 3 and 7-23 be withdrawn.

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In view of the foregoing remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

A handwritten signature in cursive script, reading "Rozell Williams, Jr.", positioned above a horizontal line.

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